

## Notice of Allowability

Application No.

10/649,206

Examiner

Ling-Siu Choi

Applicant(s)

LU ET AL.

Art Unit

1713

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☐ This communication is responsive to 05-13-2004.
2. ☐ The allowed claim(s) is/are 1-18.
3. ☐ The drawings filed on 27 August 2003 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All    b) ☐ Some\*    c) ☐ None    of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  6. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).**
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

### Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),  
Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

### DETAILED ACTION

1. This Office Action is in response to the Amendment filed May 13, 2004. Claims 19-20 were canceled and claims 1-18 are now pending.

### *Allowable Subject Matter*

2. Claims 1-18 are allowed.
3. The following is an examiner's statement of reasons for allowance:

The present claims are allowable over the closest reference: Kaus et al. (US 4,347,158) and Matsuno et al. (JP 54-122387).

The present invention is directed to an olefin polymerization catalyst containing

A	a solid catalyst component obtained by copulverizing
	(a) magnesium compound [ $Mg(OR)_{2-n}X_n$ ]
	(b) an aluminum compound [ $Al(OR')_3$ ]
	(c) an organic electron donor containing at least one atom [oxygen, silicon, nitrogen, sulfur, and phosphorus atoms]
	(d) a titanium compound
B	an organoaluminum compound

(summary of claim 1)

Kaus et al. et. disclose a catalyst for olefin polymerization, the catalyst comprising (A) a

catalyst component and (B) triethyl aluminum, wherein the catalyst component is prepared by the steps of (a) co-comminuting a **magnesium chloride** support base and **aluminum trichloride**, (b) co-comminuting anisole with the resulting product from step (a), (c) co-comminuting the resulting product with **ethyl benzoate**, and (d) co-comminuting **titanium tetrachloride** with the resulting product from step (c) (Example 1-col. 10, line 35; claims 13-14). Kaus et al. further disclose that the polymerization of propylene is carried out at 70°C (col. 10, lines 44-45). However, Kaus et al. do not teach or fairly suggest a catalyst comprising  $\text{Al(OR)}_3$ .

Matsuno et al. disclose a catalyst comprising (A) a solid component and (B) an organometallic compound, wherein the solid component is prepared by pulverizing (a) a reaction product of **magnesium** oxide and **aluminum** trichloride, (b) an **ester**, and (c) a **titanium** compound (abstract). However, Matsuno et al. do not teach or fairly suggest a catalyst comprising  $\text{Al(OR)}_3$ .

In light of the above discussion, it is evident as to why the present claims are patentable over the prior art.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### ***Conclusion***

4. Any inquiry concerning this communication or earlier communications from the

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examiner should be directed to Ling-Siu Choi whose telephone number is 571-272-1098.

If attempt to reach the examiner by telephone are unsuccessful, the examiner's supervisor,  
David Wu, can be reached on 571-272-1114.

*Ling-Siu Choi*

Ling-Siu Choi

June 8, 2004